



# Coating Material Compatibility Guide

✓ - Successful Coating

? - Contact SilcoTek for Clarification

✗ - Not Successful Coating

Material Types	SilcoNert® 1000	SilcoNert® 2000	SilcoKlean®	SilcoGuard®	Silcolloy®	Dursan®	Dursox®	Notak®
6% Moly Alloys	✓	✓	✓	✓	✓	✓	✓	✓
AlNiCo8	✓	✓	✓	✓	✓	✗	✗	✓
Other AlNiCo Alloys	?	?	?	?	?	?	?	?
Aluminum ≥ 3% Magnesium (Mg)	✗	✗	✗	✗	✗	✗	✗	✗
Aluminum ≥ 0.4% Lead (Pb)	✗	✗	✗	✗	✗	✗	✗	✗
Aluminum ≥ 0.4% Bismuth (Bi)	✗	✗	✗	✗	✗	✗	✗	✗
Aluminum alloys not listed above	✓	✓	✓	✓	✓	✓	✓	✓
Brass	✗	✗	✗	✗	✗	✗	✗	✓
Bronze	✗	✗	✗	✗	✗	✗	✗	✗
Carbon	✓	✓	✓	✓	✓	✓	✓	✓
Carbon and Tool Steel (Not for corrosion)	?	?	?	?	?	?	?	?
Ceramics	✓	✓	✓	✓	✓	✓	✓	✓
Copper and copper alloys	✗	✗	✗	✗	✗	✗	✗	?
Elgiloy® (Possible undesired hardening)	?	?	?	?	?	?	?	?
Fecralloy®	✓	✓	✓	✓	✓	✓	✓	✓
Glass	✓	✓	✓	✓	✓	✓	✓	✓
Gold	?	?	?	?	?	?	?	?
Hastelloy®	✓	✓	✓	✓	✓	✓	✓	✓
Inconel®	✓	✓	✓	✓	✓	✓	✓	✓
Invar	✓	✓	✓	✓	✓	✓	✓	✓
Lead and Lead Alloys	✗	✗	✗	✗	✗	✗	✗	✗
Manganese	✓	✓	✓	✓	✓	✓	✓	✓
Monel®	✗	✗	✗	✗	✗	✗	✗	?
Nickel and nickel plating	✗	✗	✗	✗	✗	✗	✗	✓
Plastics and Fluoropolymers	✗	✗	✗	✗	✗	✗	✗	✗
Platinum	✓	✓	✓	✓	✓	✓	✓	✓
Silver	?	?	?	?	?	?	?	?
Stainless Steel	✓	✓	✓	✓	✓	✓	✓	✓
Super Duplex (Possible embrittlement)	?	?	?	?	?	?	?	?
Tantalum	✓	✓	✓	✓	✓	✓	✓	✓
Titanium	✓	✓	✓	✓	✓	✓	✓	✓
Tungsten Alloys	?	?	?	?	?	?	?	✓
Zinc	✗	✗	✗	✗	✗	✗	✗	✗
<b>Surface Finish</b>								
Electropolished	✓	✓	✓	✓	✓	✓	✓	✓
Passivated	✓	✓	✓	✓	✓	✓	✓	✓
Hardened	✓	✓	✓	✓	✓	✓	✓	✓
Polished	✓	✓	✓	✓	✓	✓	✓	✓
Laser etched/engraved	✓	✓	✓	✓	✓	✓	✓	✓
Other coated or plated	?	?	?	?	?	?	?	?
<b>Weld or Braze</b>								
Vacuum-nickel Brazing	✓	✓	✓	✓	✓	✓	✓	✓
TIG/MIG Weld	✓	✓	✓	✓	✓	✓	✓	✓
Silver Solder (Must withstand 450°C)	?	?	?	?	?	?	?	?
Bronze Solder	✗	✗	✗	✗	✗	✗	✗	✗
Common Lead/Tin Solder	✗	✗	✗	✗	✗	✗	✗	✗